BYERS Hist. Path.

THE EVOLUTION OF OBSTETRIC MEDICINE:

WITH ILLUSTRATIONS FROM SOME OLD MIDWIFERY BOOKS.

BY

SIR JOHN BYERS, M.A., M.D., M.A.O.,

PROFESSOR OF MIDWIFERY IN THE QUEEN'S UNIVERSITY OF BELFAST.

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THE EVOLUTION OF OBSTETRIC MEDICINE;

WITH ILLUSTRATIONS FROM SOME OLD MIDWIFERY BOOKS.

At a meeting of the Ulster Medical Society on January 18th, 1912, the honorary librarian, Dr. W. L. Storey, read some most interesting notes on two old volumes which he showed, and which he subsequently very kindly placed in my hands, dealing with obstetric medicine. At the next meeting, February 15th, 1912, I was able to exhibit two additional ancient books on the same subject. Some details about these works may be worth recording—apart from their own individual interest—for the light they throw upon the early history of obstetrics, and its gradual development into a science and an art.

I.—"The Byrth of Mankynde."

In the year 1909 there was found in the library of the Ulster Medical Society, in the midst of a number of other old publications, a beautifully preserved copy of the 1545 (second) edition of *The Byrth of Mankynde* (the first edition appeared in 1540) with this title:

The byrth of
Mankynde, other wyse named
the Woomans booke. Newly
set furth, corrected and
augmented. Whose cō
tentes ye maye rede
in the table of the
booke, and most
playnly in the
prologue.
By Thomas Raynold
phisition
Anno M.D. XLV.

On the back of the book, which is bound in mottled calf is "Raynold's Midwife," while on the last page, below "Imprynted at London by Tho. Ray." is written "S. Sarah Simcock. hoar Booke"—the name, perhaps,

of some former owner, who may have been a midwife. The initial S has faded, as if whoever wrote the name made this letter, and then started again to write her Christian name. A little beyond the word "Booke" is a blot, which has spread gradually upwards and backwards as if from the spilling of a drop of ink. What is this book, and who is its author (or authors)? In the year 1513 the first printed work on midwifery was published in Worms by Eucharius Rosslin with the title *Der Swangern frawen und Hebammen Rosegarten* ("The Rose-Garden of the Pregnant Woman's Nurse"). It was compiled largely from the teaching of the famous physicians of the Alexandrian school—Soranus and Moschion—which has come down to us through compilations made, along with works of earlier writers, by Oribasius and Aetius, and in the Muscio MSS. (as pointed out by Fairbairn), which, it is known, were for a time in the Heidelberg Library, where Rosslin, who practised at Frankfort-on-the-Mainę, may have had access to them. What makes this work of special interest is the fact that its advent synchronized with the discovery of printing, and so, though it appeared first in German, it was subsequently translated into Latin as *De Partu hominis et quae circa ipsum accidunt, Libellus D. Eucharii Rhodionis Medici*, in 1532. It was from this Latin version that it was translated into so many modern languages, such as Dutch, Hungarian, German, Italian, and French. In the year 1540 the first English edition of *The Byrth of Mankynde* appeared, the work having been translated from the Latin version of Rosslin's (or Rhodion's) book, by Richard Jonas, a man who may have been simply a scribe "a certayne studious and dilygent clarke" (referred to in "a prologue to the women readers" preceding the first book of the second and succeeding editions of the work), or he may have been a connexion of Justus Jonas, the German reformer, who was born at Nordhausen, Prussia, 1493, and died at Eisfeld, Saxe Meiningen, 1555, and who was the friend and collaborator of Luther. The second edition of *The Byrth of Mankynde* differs (as shown by Ballantyne) from the first or "Jonas" edition, in that it is the first of what some have called the "Raynalde" editions, and it is also the first that contains the prologue to woman readers—the man midwife had not yet come—the anatomical figures, the greater part of the first book, and the Latin preface with the reference to Aristarchus, the noted Alexandrian grammarian and critic, who flourished about the second century B.C. In a word, this most interesting book is largely Rosslin, with additions by Thomas Raynalde, an English physician, who it appears practised in London and Paris, and who travelled abroad a good deal, for the epistle dedicating another of his books is dated from Venice. This work is *A Compendious Declaration of the excellent Virtuees of a certain lateli invented oile called for the Worthins thereof oile imperial with the manner how the same is to be used for the benefite of mankinde*

against innumerable diseases written by Thos. Raynalde Doc. of Phisick. Virtute duce, comite fortuna, Venice, 1551. Of *The Byrth of Mankynde* there have been, from 1540 to 1676, as many as fourteen English editions, a circumstance which indicates what an influence this book excited on midwifery practice in England. It was the first English book printed on the subject of obstetrics, but not the earliest work in our language on midwifery, for Dr. Aveling has shown (*Obstetrical Journal of Great Britain and Ireland*, ii, 73, 1875) that among the Sloane MSS. in the British Museum there is a work by an unknown author of the fifteenth century written and illuminated, "of which," he says, "two hundred and thirty-four pages are devoted to midwifery and diseases of women." "In some instances the text," according to Dr. Aveling, "is a verbatim translation from Regerius." This reference to the Sloane MSS. is of interest to all medical men, and especially to those of North of Ireland birth or extraction, because these wonderful collections have among them letters and notes by most of the doctors of the century preceding Sir Hans Sloane's death, and they thus form the principal source of the medical history of England during a period of six reigns—Charles II, James II, William III, Anne, George I, and George II—and because they were brought together by Sir Hans Sloane, who was born at Killyleagh, co. Down, April 18th, 1660. Sloane was one of the greatest men Ulster has produced.*

How this beautiful copy of the second edition (1545) of *The Byrth of Mankynde* reached the old "Belfast Medical Library" in 1829 is unknown, and at present the only other copies of this edition—four in number—are, so far as is known, in the British Museum; Royal College of Physicians of London; Hunterian Library, University of Glasgow; and in the private collection of Dr. W. S. A. Griffith of London. One of the most curious features of the book consists in the irregularities of pagination (as occurs even in some of Shakespeare's folios), due largely to want of care and shortness of type. It is beautifully printed in black letter, with woodcut capitals. Round the quaint title-page is a woodcut border, and in the book there are the Vesalius anatomical plate and the Rosslin "Byrthe Fygures," with "The Woman's Stoule."

II.—"The Compleat Midwife," etc.

This old book, which I owe to the kindness of a friend and former student, Dr. Mandale Byers, who sent it to me from London, where he had picked it up, is a calf-bound octavo volume, printed in London "for Nath. Brook, at the Angel in Corn-hill, 1663." Unfortunately the title-page is wanting, but there is "The Preface by Sundry Practitioners in and about the City of London," etc., which is signed at the end with the initials of six people—R. C., J. D., M. S., T. B., W. C., M. H.—whoever they may be.

*British Medical Journal, November 18th, 1905. "Nova et Vetera —Sir Hans Sloane," by Professor Byers.

This preface is of great interest as throwing a light upon some of the contemporary obstetric literature of the day. It is as follows:

Christian Reader,

It is high time, there being already published many Treatises in this kind, for us to discharge our consciences for the good of the Nation: we have perused all that have been in this nature in *English*, and find them strangely deficient, so crowded with unnecessary Notions, and dangerous Mistakes, that we thought it fit to give you warning of them, that for the future the unfortunate Practisers may prevent the *almost guilt* of the crying sin of Murder.

It is admirable to us, that our Country should be so much deluded, to build all their practice upon such Authors, that have at all conduced to any considerable advantage in this so necessary and useful Art, as the preserving of Mankind. Alas! how many miserable Volumes have these late times brought forth? Not to disparage any that have deserved, but in so weighty a concernment as this, we must stand upon our integrity. There hath been a reasonable intention in the publishers of some Books, *viz. The Birth of Man*, the most ancient, but very much unfurnished; as also the Books of *Childbirth*, [this is probably the English translation of Guillemeau's treatise on midwifery which was published in 1612, with the title *Childbirth; or, The Happy Deliverie of Women.* Guillemeau was one of Ambroise Paré's ablest pupils], *The expert Midwife* [this is the English version of the *Hebammenbuch* of Jacob Rueff, published in Zurich in 1554] the worst that hath been written in that kind in French; and it's almost a Miracle to us, that Mr. *Culpeper*, A man whom we otherways respect, should descend so low as to borrow his imperfect Treatise from those wretched Volumes, some of which are before mentioned; And we must deal faithfully with you, that, that small piece of his, intituled, *The Directory for Midwifes*, is the most-desperately deficient of them all; except he writ it for necessity, he could certainly have never been so sinful to have exposed it to the light. Now, Christian Reader, to give thee a true information of what we have here done for thy good, we shall not only justify from our own experiences, but fully demonstrate from the writings of the best Practisers, both of the *French*, *Spanish*, and *Italians*, and other nations; and we must clearly confesse, that we are highly obliged to the incomporable labours of that most Famous Woman of the World, *Madam Loug. Bourgeo*, late midwife to the Queen of *France:* the praises that we read of all those that ever heard of her, are not so much a flourish, as truth; for her reasons are solid experiences, and her witnesses have been all of the most eminent persons of *France;* and not only of her, but as we have already exprest, of the most excellent known Men and Women of this Art of other Countries: It's upon this account that we break the barriers and boldly stand the brunt of all Censures.

The chief occasion of this Book is, to make it a great Exemplary and School, where Medicine married to the Midwife's industry, may teach everyone the admirable effects of the Divinity of this Art of Midwifery.

And now knowing, Reader, that the Receipts herein contained, which have ever had happy successes, are not made publick to the world on any other sign, than of the assistance of such persons, whom either the want of fortune, or opportunity desireth such sudden helps, neither can we be without bleeding hearts, if we but consider how many have been lost by the unskilfulnesse of those that attempted this great Work; nor should we have prostrated our reputation and private experiences, but to correct the frequent mistakes of most *Midwives*, who, resting too bold upon the common way of delivering women, neglect all the wholesome and profitable Rules of Art, which might concern them in the occult diseases of Women, as

also of the anatomical parts of the Body. Thus having discharged our consciences, we have no more to write, but refer you to the Book itself, desiring a blessing of God on these our faithfull endeavours. We are the hearty Well-wishers of your good.

The book opens with

The
Compleat Midwife
Her
Practice enlarged.

The serious and most choice secrets of Madam Louyse Bourgioes, Midwife to the Queen of France; which she left to her daughter as a Guide for her: And also for the Practice of all discreet Midwives, to prevent all dangerous Mistakes in a work of so high Concernment; necessary to be known by all Child-bearing Women, and others.

This "Compleat Midwife" occupies 276 pages of the book, the first 242 being contributed by Madam Louyse Bourgioes, with steel plates, one giving "The natural forme of a child lying in ye womb," the other showing figures of the special organs in both sexes, which are fully described in the text, in accordance with the anatomical and physiological knowledge of those days. Hints are suggested for the proper management of pregnancy and for the minor complications of labour; while in chapter xxviii, "Of cases of extremity, and first, what is to be done to a woman, who in her travail is accompanied with a flux of blood, and with convulsions," she shows how well she must have been taught by Ambroise Paré. The cross-bed position is recommended, podalic version is fully described, and when the child is dead in the womb and it is necessary that it should be delivered, the method of using the hook is demonstrated. The use of the *speculum matricis* or apertory, is advised for dilating the womb. In short, all the methods of delivery known at that period are fully explained. In the selection of a nurse for a baby she gives excellent advice, as well as when it is necessary to provide a foster-mother in the case of "those women that either cannot or will not nurse." Attention is drawn to diseases of the womb and of the breast, and one of the causes assigned by her for the "Green-Sickness" (chlorosis) is obstruction (? constipation) of the bowels; "hence arises an ill concoction in the bowels, and the humours are carried into the habit of the body, or become habitual thereunto." Purgation is one of the methods of treatment recommended, so that Madam Bourgioes anticipated Sir Andrew Clark's theory as to the causation and treatment of chlorosis. Finally, she draws attention to the bringing up of children, as well as to their diseases. At page 243 of this book we have

A full supply of such most usefull and admirable secrets, which Mr. Nicolas Culpepper in his brief Treatise, and other English Writers, in the Art of Midwifery, have hitherto wilfully passed by, kept close to themselves, and wholly omitted; now at last made publick for the General good: By T. Chamberlain M.P.

And this runs on for another thirty-three pages. Then follows:

Rare Secrets Brought to Light, Which for many years were Locked up in the Brest of that most famous and Learned Physitian Sir *Theodore Mayern*, Physitian to His Late Majesty, King Charles the First, of ever blessed memory. In which are contained the sufficient Testimonies of the Warranted, and Happy Successes of his Mature judgment in his general Practice, on the greatest Ladies of the Court and Country, in the Faculty of so publick a Benefit, as of the excellent Skill of Midwifery.

In a preface to these "Rare Secrets" the writer, "as being a near relation" of Mayern (his name is not given), tells "the Understanding Reader" that, hearing of a second edition that was "to come forth" of the works of Madam Lowise Bourgeoise, he "thought it most convenient to annex thereunto this collection more considerable for its quality, than quantity."

An account of the principal writers that figure in this book may be of interest:

1. Louise Bourgioes (Bourgeois, or Boursier), who was born in 1563, was a Paris midwife held in great repute towards the end of the sixteenth and the beginning of the seventeenth century. Her husband—an army surgeon named Martin Boursier—and she were educated under Ambroise Paré, and from them both she received instruction in the more difficult parts of the art of midwifery. She was one of the first graduates of the famous school for midwives established at the Hôtel-Dieu in Paris. Her reputation became so high that she was appointed *sage femme jurée* to the Queen of France, whom she attended, as well as the great ladies of her Court. She was the writer of several works, such as: (*a*) *Various Observations on Sterility, Fertility, and Diseases of Women.* (*b*) *The Collection of Secrets.* (*c*) *The True Nature of Births of Men and Women of France.* (*d*) *Directory to my Daughter, The Compleat Midwife, her practice enlarged.* Her fees for an obstetric attendance varied according to the sex of the royal child; 500 crowns if it was a boy, 300 if a girl. What she charged if the child was stillborn or in case of twins is not related. In her old age she enjoyed a pension of 300 crowns per annum. In Dr. J. Munro Kerr's *Operative Midwifery*, p. 139, 2nd edition, 1911, it is stated, on the authority of Fashbender, that she recommended reposition of the prolapsed cord, and the maintaining of it in position by means of a tampon. This would be about 1609. In 1627 she lost popularity owing to the death—from septicaemia—of a royal princess, the Duchesse d'Orleans, whom she had attended.

2. It is difficult to say exactly who "T. Chamberlain, M.P.," really was. He may have been a miscellaneous writer who translated *A Treatise of Health*, by Castor Dorante.

3. Nicholas Culpepper (1614–1654) was a physician (in the title-pages of some of his books he adds M.D. to his name, though whether or where he graduated in medicine

seems to be unknown) who practised at Spitalfields, and who thoroughly understood the arts of the quack advertiser, though there can be no doubt he was a man of considerable attainments and of great powers of work. His *Herbal* was a famous family medicine book for past generations. In addition to being a doctor, he was a soldier during the Civil War—being probably a Parliamentarian—and was wounded in one of the battles. His *Directory for Midwives* is chiefly remarkable for demonstrating what a contemptible position obstetrics occupied in England, especially as compared with the Continent, in the seventeenth century. Smellie says of him, in his *Treatise:* "His performances were for many years in great vogue with the Midwives, and are still read by the lower sort, whose heads are weak enough to admit such ridiculous notions."

4. Sir Theodore Mayern—or, to give him his full title, Sir Theodore Turquet de Mayern (1573–1655), Baron Aulbone of France—was the son of a French Protestant of Piedmontese origin, while his mother was a daughter of Le Maçon, Treasurer of War in the reigns of Francis I and Henry II of France. He was born at Mayenne, near Geneva (hence his name), in 1573. He studied at Heidelberg and afterwards at Montpellier, where he graduated M.D. Starting practice in Paris, he lectured on anatomy to the surgeons, and on pharmacy to the apothecaries. His liking for chemical remedies attracted the attention of Dr. Ribbitz de la Rivière, at that time first physician to Henry IV, and he was himself appointed one of that King's physicians. His defence of chemical remedies aroused the ire of the medical profession, and although King Henry liked him, his Queen—Marie de Medici—was unfriendly and insisted on Turquet's dismissal, and the Medical Faculty of Paris issued a decree forbidding all physicians who acknowledged their authority to consult with him, and exhorted practitioners of all nations to avoid him, and to persevere in the doctrines of Hippocrates and Galen. In 1606 he had fortunately attended successfully an English peer who was in Paris, and who, to show his gratitude, presented him to the King of England, who made him physician to the Queen, and in the same year he was incorporated M.D. of Oxford. In 1611 he came to reside in England, and such was his great reputation that he was appointed physician to James I, a position which he continued to hold under Charles I and Charles II. He had a large and fashionable practice and was trusted implicitly by Kings James and Charles I, and in 1616 he was made a Fellow of the Royal College of Physicians, and in 1624 a knight. Sir Theodore Mayern was a great physician—with a special liking for pharmacy—and a versatile author. He wrote in both English and French, and kept careful notes of his cases, which now occupy twenty-three volumes of the Sloane collection in the British Museum. It is to him we are indebted for an interesting account of the illness and death of Isaac Casaubon, the famous classical scholar and Protestant

theologian of French (Gascon) origin (1559–1614), who died in London, and who was a prebendary of Canterbury and pensioner of King James, which Mayern wrote in 1614. The Society of Apothecaries owed to Mayerne their incorporation, and King James I commissioned him to write a dedication to him of the first *Pharmacopoeia* published by the Royal College of Physicians. He invented a famous "Powder de Gotteta" for epilepsy, a gout powder, an ointment for hypochondria, and he discovered the purple colour necessary for carnation tints in enamel painting. He made experiments in pigments which, it is said, rendered him popular with his lady patients, while he used as a scribbling-book, that could be washed, a sort of tablet with a covering of parchment treated with a resinous compound, the prototype of the modern doctor's slate. It is to him, it is said, we owe the introduction of calomel and the use of "black wash." He also practised midwifery, as these "Rare Secrets" show, but more as a physician than as a surgeon, for there is little if any mention of the difficulties of labour in these "Rare Secrets," which are full of recipes for "emplasters," ointments, powders, lotions, injections, and other pharmaceutical remedies, for the minor complications of obstetric practice. In England, where he died in 1655, he used the the name Mayern or Mayerne. Some authorities have suggested that the Dr. Caius in Shakespeare's *Merry Wives of Windsor* is a burlesque on Sir Theodore Mayern, but until some evidence be forthcoming we must hesitate to admit this interpretation. The French doctor type is very common in Elizabethan literature, and hence Ambroise Paré has also been suggested as the original of Dr. Caius. The painting of Sir Theodore Mayern, done by Rubens, after various vicissitudes, was in 1848 bought by the Royal College of Physicians.

III.—"Art of Midwifery."

The third old book, which formerly belonged to the "Belfast Medical Library," is a beautifully calf-bound octavo volume, on the back of which is "Art of Midwifery," and with the following title-page:

The Art of Midwifery Improv'd.

Fully and Plainly laying down Whatever Instructions are requisite to make a Compleat Midwife. And the many Errors in all the Books hitherto written upon this subject clearly refuted. Illustrated with 38 Cuts curiously engraven on Copper Plates, representing in their due Proportion the several positions of a *Foetus*. Also A New Method, Demonstrating, *How infants ill situated in the Womb whether obliquely, or in a strait Posture*, may, *by the Hand only* without the Use of any *Instrument*, be turned into their right Position, without hazarding the Life either of *Mother or Child*. Written in Latin by Henry à Daventer. Made English. To which is added, A Preface giving some Account of this work by an Eminent Physician. London: Printed for E. Curll, at the Dial and Bible, F. Pemberton, at the Buck and Sun, both against St. Dunstans-Church in Fleet-Street, and W. Taylor, at the Ship in Pater-Noster-Row. 1716. Pr. 6s.

Henry à Daventer (or Heinrich van Deventer) was born at Daventer, the capital of Over-Issel, in Holland, and took his name from his native town, as was the custom of the Van-Low. Originally a goldsmith, he afterwards turned to the healing art, and at the end of the seventeenth and beginning of the eighteenth century he had a great reputation as a doctor and accoucheur. He practised for a long time with his wife (a Vroedvrow as he was a Vroed meester) at Groningen, and in several other parts of Holland, and was called to Denmark by Charles V, who recompensed him well. He was a thorough anatomist and surgeon, and though he devoted great attention to orthopaedics (inventing instruments to correct deformities) his reputation is based specially on his skill as an obstetrician. He wrote a treatise, *Novum lumen obstetricantium quo ostenditur quâ ratione infantes in utero tàm obliquo quam recto pravè siti extrahantur*, Lyden, 1701. In this volume inconveniencies arising from obliquity of the uterus are shown, as well as the means how best to remove them. He also wrote *Ulterius examen partuum difficilium lapis lydius obstetricum et de necessitate inspiciendi cadavera*, 1725. His chief work was translated into English as *The Art of Midwifery Improv'd*. He also wrote *Operationum chirurgicarum novum Lumen exhibitum Obstetricantibus pars secunda*, 1773, which contains all his teaching on midwifery. Numerous editions of this work have appeared in German, Dutch, French, and in English. He wrote a work on rickets, which appeared posthumously. This *Art of Midwifery Improv'd*, by Daventer, is of the utmost importance to any one interested in the history of obstetrics. In the first place, it is addressed both to midwives as well as to "surgeons who practise midwifery," that is, to the men midwives; and in the preface, written, as we are told, by an eminent physician, there is this curious paragraph:

> Midwifery has, in all ages, been the study of the most learned Physicians, tho' the Practice of it has best succeeded in this last Age among the *French*; for their Ladies, laying aside all unreasonable Modesty, have provided for their own and children's Safety by admitting of Assistance from both Sexes; and the Men being more Skilful in Anatomy, and being disposed to find out new Help in unforeseen cases, have brought it to greater Perfection than it could possibly attain by other Means in other Countries.

In this passage references are made, doubtless, to Ambroise Paré, Guillemeau, and Mauriceau, who in 1668 published a work on midwifery, which was translated into English by Hugh Chamberlain, who, in a preface, wrote those memorable words forecasting the use of the forceps:

> My Father, Brothers, and my Self (tho' none else in Europe as I know) have by God's Blessing and our Industry attained to and long practised a way to deliver women in this case without any Prejudice to them or their Infants,

as well as to the fact that in 1663 Louis XIV was so pleased with the way Jules Clement, a distinguished Paris surgeon, had attended at childbirth one of his favourite mistresses (Madame de la Vallière), whom she had asked to

be with her to preserve secrecy, that not only did he attend the same lady on similar subsequent occasions, but he rose rapidly as a Court favourite; and the result was that it became fashionable to have surgeons in full attendance (and not summoned simply if difficulties arose) at confinements; and a new word, "accoucheur," was coined for this type of medical practitioner. But this book of Daventer was really the first to present anything approaching a scientific description of the pelvis (two admirable figures are given, one being a vertical section), and to indicate any advance in the direction of the mechanism of labour. Daventer was one of the first to study deformation of the pelvis.

If Soranus be regarded as the "Father of ancient obstetrics," as Hippocrates was of medicine, then Daventer may be styled the "Father of Modern Midwifery," just as Sydenham is of modern medicine.

IV.—"Burton's Letter to Smellie."

The last book I have to speak of is a plain calf-bound octavo volume, which I owe to Dr. W. L. Storey, as it is in the library of the Ulster Medical Society. On the back of it is "Burton's Letter to Smellie," and on the title-page:

A Letter to William Smellie, M.D. Containing Critical and Practical Remarks upon his Treatise on the Theory and Practice of Midwifery. By John Burton, M.D. Wherein the various Gross Mistakes and dangerous Methods of Practice Mentioned and recommended by that Writer, Are fully demonstrated and generally corrected. Likewise the several Advantages or Dangers, to both Mother and Child, attending the Turning the last in the Womb to extract by the feet, or that accrue from the Use of each particular kind of Instrument, employ'd in delivering Women, are shown in a more ample Manner than heretofore. Being as an Appendix to both the above-mentioned authors *Treatises on Midwifery;* absolutely necessary to be perused by all who have read the former's Book, or attended his Lectures with a View to Practice. To which is affixed a Copper-Plate, representing several Sorts of Instruments used by the Ancients, with the Fillet as improved by the Author thereof. London: Printed for W. Owen at Homer's Head, Temple-Bar, MDCCLIII.

It was only natural that a great personality like Smellie (1697–1763) should excite the envy of some of his contemporaries, because of the popular prejudice that existed at his time against men-midwives and the forceps; hence a man who, to quote one of his contemporary writers, "was an enthusiast in his profession—man-midwifery was the idol of his heart; he believed in his forceps as firmly as he did in his Bible"—was a ready object for attack. The most personal of his slanderers was the Haymarket midwife—the celebrated Mrs. Elizabeth Nihell—who in her book, *A Treatise on the Art of Midwifery*, speaks, in referring to him, of the "delicate fist of a great horse-godmother of a he-midwife," while a Dr. Wm. Douglas—styled by himself "Physician to His Royal Highness the Prince of Wales' Household and man-midwife," sneers at his "monstrous hands fit

only to hold horses by the nose whilst they are shod by the farrier, or stretch boots in Cranbourne Alley." It must, however, be conceded that in this very heated and personal controversy Smellie was not without support, for in his "Reflections upon Slow and Painful Labours," Giles Watts, in censuring Burton for his "Letter to Smellie," charges him with "trifling cavellings, wilful misrepresentations, scandalous plagiarism, unfair argumentation, and abusive language"; and writes that he is himself "ready, if called upon, to prove the truth of the above assertions." John Burton (1697–1771) wrote the "Letter to Smellie" mainly in reply to an early critique on Smellie's "Treatise on the Theory and Practice of Midwifery," which appeared in the sixty-first article of the *Monthly Review* for December, 1751, in which the writer says, "after your long Practice in the Country, and ten whole years in London—after reading 280 courses of Midwifery, to perhaps 1,000 people male and female—after thousands of various deliveries; who can doubt, I say, after these considerations, that this Treatise on the Theory and Practice of Midwifery, together with the Prints mentioned in your Advertisement, and the Volume of cases hereafter to be published, will not compose one of the most complete Systems in the world?" In his remarks in this "Letter," upon Dr. Smellie's book, Burton proceeds to consider "that author in several Lights, as an historical Writer, as an Anatomist, as a Theorist, and a Lecturer or Practitioner," evidently much to his own satisfaction.

John Burton, a native of Ripon, graduated M.B. of Cambridge in 1733, and M.D. of Rheims, and attained to a high position as an antiquary (he wrote in 1758 "Monasticon Eboracense and Ecclesiastical History of Yorkshire") and as a medical practitioner at York. He devoted special attention to obstetrics, and published in 1751 and 1753 an "Essay on Midwifery." Burton's silly attack upon Smellie, who is thus estimated by Dr. Alfred McClintock, an ex-Master of the Dublin (Rotunda) Lying-in Hospital (whom I remember presiding so ably at the 1881 International Medical Congress, London, in the Section of Obstetric Medicine and Gynaecology), in his memoir of Smellie, published in the reprint of that great man's Treatise in 1876 by the New Sydenham Society:

> As a teacher, author, and practitioner, there is no British obstetrician—certainly none of the Eighteenth Century—who deserves so high a place in our estimation as William Smellie. Nay more, under whichever of these several aspects we may regard him, he scarce has an equal, whilst of all the men, British and foreign, who have most largely contributed to the advance of sound obstetric knowledge, Smellie may justly stand in the foremost rank. No accoucheur, ancient or modern, unfolded so many of the principles of true obstetric science, and in his practice so consistently acted up to them:—

would have never been remembered had it not been that perhaps his "Letter" may have come into the hands of Laurence Sterne (1713–68) just at the time that the fierce controversy was raging between the woman- and the man-

midwives. It so happened that at this particular juncture Sterne was enjoying the living of Sutton, near York, where he tells us he was spending his time "painting, fiddling, and shooting," while Burton was a local physician at York, which Sterne often visited, as he was a prebendary of the Cathedral. As a result, the greatest of the impressionists in English style seized hold of the situation and of a local person—whose political opinions (report said) had rendered him obnoxious to Sterne—to set both off, and as a result we have in *The Life and Opinions of Tristram Shandy, Gent.*, published in 1760, one of the clearest pictures of the state of obstetrics of that time depicted to us in a series of as amusing and satirical situations as have ever appeared in the literature of any country; and in which the obstetrical, religious, and scientific weaknesses of the eighteenth century are mercilessly exposed. Dr. Burton is hit off as Dr. Slop:

> Imagine to yourself a little squat uncourtly figure of a Doctor Slop, of about four feet and a half perpendicular height, with a breadth of back and a sesquipedality of belly which might have done honour to a sergeant in the Horse Guards. . . . Imagine such a one—for such, I say, were the outlines of Dr. Slop's figure—coming slowly along, foot by foot, waddling through the dirt, upon the vertebrae of a little diminutive pony.

We are told this obstetrician, who had "devised many curious improvements for the quicker extraction of the fetus in cross births," had lost his front teeth through the unfortunate slipping of his forceps during a previous delivery. It is said in Allport's paper (see bibliography):

> Dr. Burton, woefully lacking in a sense of humor—solemnly disclaimed all resemblance to the caricature Sterne had drawn of him. Then another doctor of the neighbourhood, thinking Sterne might have meant him, called up the parson one morning and entered a vigorous protest against the indecent liberties taken with him. After vain attempts to convince the doctor of his error, Sterne lost patience, and remarked sharply: "Sir, I have not hurt you; but take care; I am not born yet; but heaven knows what I may do in the next two volumes."

We forgive Burton for his absurd attack on Dr. Smellie, and think only of him as "Dr. Slop," that remarkable literary creation which will live for all time along with Falstaff, Micawber, Uncle Toby, Corporal Trim, and Widow Wadman.

It is rather an interesting fact—from a literary point of view—that Smellie was brought into direct contact with Smollett (1721–1771), and had the benefit of that great writer's literary adroitness in the revision of his *Treatise on Midwifery*, published about 1751–2, for in Dr. John Glaister's classical work, *Dr. William Smellie and his Contemporaries* (Glasgow, 1894), a facsimile of a letter, dated Chelsea, March 1st, 1754, is given from Smollett to Dr. John Moore (who, as well as Denman, was a pupil of Smellie) showing that he had revised the contents of the second volume of Smellie's work and probably the others. Smollett, who was himself a medical man, was an intimate friend of Smellie and William Hunter. It was Smollett who communicated Case No. II in vol. ii of the *Midwifery*.

The Development of Obstetrics.

The old works on midwifery which I have mentioned throw considerable light upon the history of the development of obstetrics, which has been one of gradual progress from the earliest times until the present day; but, as is the case in the sister branches of medicine and surgery, certain landmarks stand out clear and prominent. The first of these is that remarkable book, *The Byrth of Mankynde*, which made its original appearance in 1513 and was published in its first English garb in 1540. Intrinsically it is of really no value; but as it was the first printed work on midwifery, and as it was translated into so many different languages, it served to draw special attention to the subject, and it occupies a distinct place between empirical or natural and scientific obstetrics. It was the "woman's booke," and was the popular work on midwifery in England for close on a hundred years, and it and many of the works which followed on the same subject, until Smellie's great treatise on the science and art of midwifery appeared, were those used when the uneducated women-midwives were at the height of their fame.

A new epoch in midwifery began in 1550, dividing the empiricism of the ancients from the commencement of modern scientific obstetrics, when Ambroise Paré (1509–1590), the father of French surgery, perfected podalic version. No doubt this great discovery had been foreshadowed, but Paré and his pupil Guillemeau (whose *L'Heureux Accouchment* appeared about 1598) demonstrated how feasible this operation was and how successfully it might be done. It has been well said that Paré accomplished for the child by this new method of delivery what Semmelweis did for the mother almost three centuries later, in showing not only how puerperal infection arose but how it could be obviated. But Paré did still more in advancing obstetric medicine, for, by the perfecting of this method of delivery, he laid the foundation for the existence of Midwifery as an independent art apart from Surgery. The one great mistake Paré made was his hostility to Caesarean section, and this was specially unfortunate at a time when such progress was being made in obstetrics in his native country, France, and when, in contrast, the state of this subject was in England deplorably backward, and continued so for the greater part of the seventeenth century.

The next landmark in the history of obstetrics was the discovery of the forceps, which was invented towards the end of the sixteenth or the beginning of the seventeenth century by a member of the celebrated French Huguenot family—Chamberlen—who came to England. Two other names are also associated with the early history of the forceps—Palfyn and Grégoire. In 1723 Palfyn, a Ghent doctor, showed before the Paris Academy of Medicine a forceps which he called "mains de fer," but, owing to its faulty make, it was never much used. It was made by doubling the "crochet en cillier" of Paré, and the two

halves did not articulate. In the early part of the eighteenth century two doctors called Grégoire, father and son—about whom it is hard to get any personal information—practised midwifery in Paris. A pupil of the younger Grégoire—Boehmer, when Professor of Midwifery in Halle—published in 1746 an account of a forceps used by these Grégoires, and this was the first forceps known in Germany. The members of the Chamberlen family, to their infinite disgrace, preserved the secret of the forceps for four generations. The head of the family, who came to England from France in 1569, was called William, and among his children he had two sons who became prominent physicians in London, and each of them, curiously, was surnamed Peter. The younger Peter had a son, also called Peter (or Doctor Peter, as he was styled), a man of great talents, who had what would now be called a fashionable practice in London. This Peter had a son called Hugh (1630–1700)—great grandson of the original William Chamberlen—also a doctor; but, being of extravagant habits which required him to raise some money at times, he decided to sell the hereditary family secret. Accordingly, he proceeded to Paris and offered to part with the secret to Mauriceau for about £2,000. Before deciding to purchase, Mauriceau naturally wished to have some practical experience of the value of this method of delivery, and, as there happened to be at the Hôtel-Dieu a deformed dwarf in labour, he asked Chamberlen to deliver her; but he was unable to do so, and thus ended, so far as Paris was concerned, the negotiation for the sale of the secret (the matter is mentioned in Mauriceau's account of his twenty-sixth case). Hugh Chamberlen—not in the least daunted—on his return to England, translated the first volume of Mauriceau's work on midwivery into English in 1672. On the title-page we read: *Written in French by Francis Mauriceau: Translated and Enlarged with some Marginal Notes by Hugh Chamberlen, M.D., and Physician in Ordinary to His Majesty*, and, in the preface, he tells us that the practice of

> fastening hooks in the head of a child in difficult labour, when it came right, has very much caused the report that when a man comes, one or both must necessarily die, and makes many for that reason forbear sending until either be dead or dying.

He adds:

> My Father, Brothers, and myself ('tho none else in Europe as I know) have by God's Blessing and our Industry attained to and long practised a way to deliver Women in this case without any Prejudice to them or their Infants.

Hugh Chamberlen afterwards went to Holland and succeeded in selling the secret either to the Amsterdam College of Physicians or to Roonhuysen, and in turn it was sold—of course under pledge of secrecy—according to some authorities, by this medico-pharmaceutical college to each person aspiring to a medical degree. Finally, two public-spirited Dutchmen (Vischer and Van der Poll) bought the secret and made it public, when it was found to be the single blade of a pair of forceps! Whether

Chamberlen humbugged the College or the College swindled their students is not known.

The first record pointing to the secret being in the Chamberlen family occurs in 1616, when the English College of Physicians summoned before them the younger Peter (son of Wm. Chamberlen), and accused him of boasting that "he and his brother and none others excelled in these subjects" (difficult labours). For over a century it was thought that the distinction of inventing the forceps belonged to Dr. Peter Chamberlen (1601–1683), a grandson of William Chamberlen, who died at Woodham, Mortimer Hall, Essex, in 1683. Long afterwards, in 1813, the housekeeper of a rich brewer who had come into possession of this mansion found in an old chest in the garret some letters and four pairs of forceps in different stages of development (when I was appointed Professor I found a model of one of these forceps in the Belfast College collection), and Dr. Aveling in his classic work, *The Chamberlens and the Midwifery Forceps* (London, 1882), showed that these instruments were probably invented and used respectively by the three Peters, and that, most likely, the earliest was devised by the elder Peter, son of the original William, a view that was also held by the late Professor Budin of Paris and Professor Sänger of Leipzig. The forceps were used generally in England during the life of Hugh Chamberlen. A Mr. Drinkwater of Brentford, who died in 1728, is believed to have been one of the first accoucheurs to use the forceps after the Chamberlens; Dr. Edward Hody, in 1734, published a record of *Cases in Midwifery*, written by Mr. William Giffard (who died in 1731), the dates ranging from 1724 to 1731, several of which were delivered by the forceps, and in his *Treatise on the Improvement of Midwifery*, published in 1733, Edmund Chapman, who practised midwifery several years in the country before he settled in London, speaks of the use of the forceps "as now well-known to all the principal men of the profession both in town and country." The original or short forceps continued to be used until, almost simultaneously, Levret and Smellie (1747 to 1751) added the pelvic curve, and it was still further improved in 1877, when Tarnier invented the axis-traction forceps, which has since again been simplified as Milne-Murray's or Neville's forceps. I have dwelt rather fully on the forceps, because its discovery may be regarded as one of the most important epochs in the history of obstetrics; to quote the late Dr. M'Clintock, it

> has done more to abridge human suffering and to save human life, than any other instrument in the whole range of surgical appliances. Nay more, the acquisition of this efficacious resource contributed most influentially to open up a new era in midwifery by rescuing it from the hands of ignorant female practitioners.

But, in addition, the discovery of the forceps gave a great impulse to the development of the obstetric art, and it led not only to the establishment of chairs and lying-in hospitals for the obstetric instruction of students,

to a better knowledge of the pelvis, to a clearer understanding of the relations of anatomy and physiology to pregnancy and labour, but also to a closer study of Nature's methods.

In the nineteenth century two of the greatest of all obstetric landmarks appear, each associated with one year —1847. It was then that Sir James Simpson showed how advantageous anaesthetics were in delivery, his application of chloroform to labour at once revolutionizing operative midwifery; while at the same time Semmelweis (1818–1865), assistant to the Vienna Maternity Hospital, not only discovered the infectious nature of child-bed fever, but by the introduction of antiseptic precautions demonstrated that this hitherto most fatal condition could be prevented, and in this way he anticipated Lister's work on antiseptic surgery, the first public account of which was given in 1867.

Since these great discoveries the history of obstetrics has been one of steady progress, the ideal aimed at now in obstetric practice being not merely a living mother and a living child, but rather a living healthy mother and a living healthy child. Bacteriology has thrown a new light upon puerperal infection, and our antiseptic and aseptic methods have become more scientific and more simple, and they have been greatly helped by the perfection of abdominal palpation and by the wearing of gloves. We try now not only to get rid of mortality but to reduce even morbidity. The advance in abdominal surgery—due so largely to gynaecologists—has helped enormously our management of extrauterine pregnancy, and also the perfection and safety of Caesarean section, and pubiotomy. One of the special aims of modern midwifery is to get rid of craniotomy, and this is being accomplished by placing the treatment of contracted pelves on a more scientific basis by pelvimetry, by estimating the relative size and consistency of the fetal head and its relation to the maternal pelvis, by skilfully selecting the method of operative delivery which will give mother and child the greatest safety, and by carefully examining women before labour. It is interesting to note in the gradual evolution of midwifery how at first women were attended by midwives alone, and that when, with the advance of surgery, men were called in—the surgical period of obstetrics—it was simply to do some operation; hence the term man-midwife arose, and this state of affairs lasted even well on to 1800, from the time Paré perfected podalic version in 1550.

It was in 1663 that it became fashionable first to employ surgeons to take full charge in midwifery cases, and the term "accoucheur" then arose in France to describe this man-midwife-surgeon. The discovery of the forceps and the necessary surgical training required for its use did more probably than anything else to rescue the practice of midwifery out of the hands of untrained and ignorant women. No one did more in this direction than Smellie, but this change in public opinion and custom—

from calling men in simply when some operation had to be done, until they were entrusted with the full charge of the cases, and had in this way an opportunity of studying Nature's methods—was a slow and gradual one, and was not accomplished without one of the fiercest discussions that ever took place in the healing art, and which gave Sterne his chance in *Tristram Shandy*. The free discussion of this question had, however, this good effect: it educated the public as to the importance of providing lying-in hospitals, and of the necessity for more careful instruction of both men and nurses in midwifery. From 1800 onwards obstetrics became a specialized subject, and was completely emancipated from surgery. It is interesting to note in the history of obstetric medicine that while at first women were attended almost entirely by members of their own sex, now again, after centuries, this custom is again occurring in many instances, but it is now by thoroughly qualified and scientifically educated female practitioners of medicine.

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